

PROJECT SHEET

FPSO CIDADE DE SAO MATEUS
STATION KEEPING AND TOWAGE

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Under brands such as Boskalis, Dockwise, SMIT, Fairmount, VBMS and Smit Lamnalco we offer more services than any other company in our industry, making us your next one-stop solution provider.

We support the development, construction, maintenance and decommissioning of oil and gas import and export facilities, fixed and floating exploration and drilling facilities, pipelines and cables and offshore wind farms.

FPSO CIDADE DE SAO MATEUS

The Floating Production Storage and Offloading (FPSO) unit Cidade de São Mateus was operated for Petrobras by BW Offshore on the Camarupim Norte fields in Espírito Santo; approximately 120 km from the coast in south-eastern Brazil. The contract has an initial fixed term of nine years. In addition Petrobras has the right to extend it by up to six years.

FPSO Cidade de Sao Mateus is one of the world's largest and most complex converted FPSOs. BW Offshore contracted Fairmount Marine B.V. for the station keeping and towage scope including various options such as supply of towing gear, navigation lights, day marks, steering/breaking tug, weather forecasts, agencies along the route and providence of a Boskalis owned Tug Management System (TMS) for the entire spread; three station keeping tugs and FPSO.

FEATURES

Company	Petrobras
Location	Offshore Vitoria, Brazil to Karimun Indonesia
Period	Preparation December 2015 to January 2016 Execution January 2016 to April 2016
Contractor	BW Offshore Singapore
Sub-contractor	Fairmount Marine B.V.



A FPSO Cidade de Sao Mateus towed by Fairmount Glacier and Fairmount Summit
B Holding FPSO Cidade de Sao Mateus in position awaiting for departure

STATION KEEPING AND TOWAGE

Fairmount Marine deployed two oceangoing tugs, Fairmount Summit and Fairmount Glacier, for the station keeping and towing operations. In addition a designated project team was on site to install the TMS and provide assistance during the preparation and station keeping phase.

Mid January 2016 the tugs arrived at Vitoria where several pre-departure meetings were held with warranty surveyors, client representatives, and captains. While in port the vessels prepared themselves for the long voyage and lifted bunkers, performed crew changes and loaded sufficient stores and provisions.





On 23 January the tugs and project team mobilized to FPSO location and started with the towing preparations which included the installation of towing gear, navigation lights, day signals and Boskalis owned TMS. After the preparations were completed and all equipment was tested the station keeping phase started and the FPSO mooring lines were disconnected one by one while the tugs Fairmount Glacier, Fairmount Summit and Sea Leopard kept the FPSO steady on location. The Sea Leopard was released upon completion and the Fairmount tugs hold the FPSO in position until all equipment and crew was disembarked from the FPSO and the final permission was given for sail away.

After receipt of the final approval on 12 February, the convoy departed towards destination Karimun (Indonesia) and made scheduled bunker stops at Cape Town (South Africa) and Port Louis (Mauritius). During each bunker stop the tugs crew boarded the unmanned FPSO and made several inspection rounds over the FPSO. To ensure safe navigation through Malacca Strait, Fairmount Marine deployed the 65t BP tug KST Zodiac from Singapore, who connected to the stern of the FPSO, and provided steering and breaking assistance. On arrival at Karimun the FPSO was safely anchored with assistance of the Fairmount and KST tugs.

After almost 9200 nautical miles of towing, FPSO Cidade de Sao Mateus was safely delivered, ahead of schedule with an average speed of 7.8 knots, at Karimun on April 8th. On 9th of May the tugs were released and sailed to Singapore.

SAFETY

With all Fairmount Marine projects safety is an essential part. The project was executed with a

good safety performance. All vessels were inspected beforehand and found suitable to safely undertake the towage. The vessels' own systems were leading.

PROJECT CHALLENGES

The main challenges effectively dealt with during the project preparation and execution were:

- Mobilization: There was limited time available for project preparations such as various purchases, TMS mobilization, trainings, medical checks, visa's, shipments and the actual mobilization of the tugs from Curacao to Brazil. With assistance of a dedicated project team and support from Boskalis local office in Brazil all equipment and services were delivered on time.
- Logistics: To avoid expensive and difficult importation of goods into Brazil all the project equipment including Tug Management System was shipped to Curacao and placed on board the tugs prior start mobilization. After completion the Tug Management System was demobilized via Cape Town and shipment costs were kept to a minimum.
- Unmanned towage: Due to class restrictions the FPSO Cidade de Sao Mateus was towed unmanned, boarding during transit was required to check the status of the FPSO and wear and tear of towing gear. During both bunker calls the weather conditions were good enough for the dedicated boarding crew to safely board the FPSO, with one tug remaining on close standby to assist where required.

CONCLUSION

The FPSO Cidade de Sao Mateus was towed as per client expectations in a safe and time effective way. Towing over a distance of 9200 miles in 56 days including bunker stops, implies an average of 7.8 knots towing speed. Evaluating the project preparation and execution it can be concluded that the operational best practices and with the experienced crew on board and designated project team were decisive for the safe, controlled and successful execution of this towage.

- C** Reconnect to FPSO near Cape Town
- D** Station Keeping of FPSO during disconnection
- E** Station Keeping of FPSO during disconnection

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